

REMARKS

Claims 1, and 3 to 15 are pending. Claims 2, and 16 to 29 have been cancelled without prejudice. Claims 1, 9, 12, and 13 are amended. Reconsideration and continued prosecution of the present application is respectfully requested in view of the above amendment and the remarks that follow.

Information Disclosure Statement

In paragraph 2, the Office Action states that the information disclosure statement filed on 7/3/2003 failed to comply with 37 CFR 1.98(a)(2) because applicant failed to provide a copy of the reference cited. In response, Applicants have submitted an additional Information Disclosure Statement on November 5, 2004 listing and providing a copy of the missing reference titled "Optimization of Interference Filters with Genetic Algorithms Applied to Silver-Based Heat Mirrors."

Specification

In response to paragraph 4 of the Office Action, Applicants have corrected minor typographical errors in the specification as shown in the Amendments to the Specification section above.

Claim Objections

In paragraph 5, the Office Action states: "[t]he claims are objected to because they include reference characters which are not enclosed within parentheses. In particular, each of claims 1 and 13 is objected because each claim contains reference character thereof '7A1B1A7B1A1B' which is not enclosed within parentheses." Applicants respectfully traverse the objection. The term "7A1B1A7B1A1B" is not a reference character. As described throughout the specification, the term "7A1B1A7B1A1B" refers to an arrangement of six optical layers in a unit cell. The numbers 7 and 1 refer to the relative optical thicknesses of the alternating layers; the letters A and B refer to different optical materials. For example, in one cyclic permutation the six optical layers of materials A and B are arranged in the order 7A:1B:1A:7B:1A:1B. Support can be found throughout the specification, e.g. at pg. 4, lines 23-25; pg. 10, lines 17-19; pg. 15,

lines 15-17; pg. 16, lines 21-24; pg. 31, lines 3-10. Since claims 1 and 13 do not contain reference characters, withdrawal of the objection is respectfully requested.

In paragraph 6 of the Office Action, claim 9 is objected to because a complete term of a definition for “PVB” is not provided in the claim. Per Examiner’s suggestion, Applicants have amended Claim 9 to provide a complete term for “PVB” as disclosed in the specification on page 1, line 20. No new matter has been added. Applicants point out that this amendment does not reduce the scope of the claim. Withdrawal of the objection is requested.

§ 112 Rejections

In paragraph 8, Claims 1-15 are “rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.” Applicants respectfully traverse the rejection.

In reference to claim 1, paragraph 8(a) of the Office Action states that the structure of the device claimed is unclear. In particular, the Office Action states that “[t]he claim as recited in the first fifteen lines of the claim discloses an optical body having a first effective optical packet ...” while “on lines 16-21, the claim recites a feature which compares the variability in transmission of the optical body recited on the first fifteen lines of the claim to a second optical body ...” In response, claim 1 has been amended by replacing the language comparing the first optical body to a second optical body recited on lines 16-21 of the claim with the following:

“...a first optical layer disposed at the one end of the first effective optical packet and a second optical layer disposed at an opposite end of the first effective optical packet are selected from among the sequence of six optical layers 7A1B1A7B1A1B to reduce said variability in transmission”.

Support for the amendment can be found e.g. in original claim 13; at page 5, lines 1-8; at page 38, line 29 – page 39, line 14; and in Figure 23. No new matter has been added. The amended claim avoids an explicit comparison to an unclaimed optical body that was present in original claim 1. Applicants point out that this amendment does not reduce the scope of the claim. Additional discussion regarding the above amendment to claim 1 can be found below in a section

titled “§ 102 Rejections”. It is respectfully submitted that claim 1 as amended is fully compliant with the requirements of the second paragraph of 35 USC § 112, placing claim 1 in condition for allowance.

In reference to claim 4, paragraph 8(b) of the Office Action states that recitation of a “noninteger number” of unit cells is unclear. In particular, the Office Action states “[w]here applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term.” (citing *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999).) Applicants respectfully traverse the rejection. Applicants did not define “noninteger number” in any way contrary to its ordinary meaning. On the contrary, the well known and plain meaning of the prefix “non” is “not”. See e.g. Webster’s New World College Dictionary, 3rd Edition, 1996. Thus the term “noninteger number” in claim 4 means a number that is “not an integer”.

The Office Action further states in paragraph 8(b) that a recitation of a non-integer number of unit cells in the effective optical packet of claim 4 “is unclear because it is unclear which number is considered as a ‘noninteger’ number.” Applicants respectfully disagree that claim 4 is unclear. The non-integer number refers to the number of unit cells in the effective optical packet. As described for example in context of Figure 5, “the merging of the boundary layer 202 and the layer 212 results in an effective optical packet with $6n-1$ layers, where n is the number of unit cells in the packet *if one additional optical layer were added.*” (page 15, lines 22-26; emphasis added). This is one example of an effective optical packet consisting essentially of a non-integer number of unit cells as set forth in claim 4. Many other such examples are described throughout the specification and figures. See e.g. page 40, lines 8-19, and Figures 24a-h. Applicants respectfully request that the rejection of claim 4 be withdrawn.

Claim 12 has been amended by changing the term “third” to “additional” in order to be consistent with newly amended claim 1.

Claim 13 has been amended to include the antecedent basis to newly amended claim 1, and simplified by eliminating duplicative language now present in newly amended claim 1.

In paragraph 8(c) of the Office Action, the remaining claims were rejected because they were “dependent upon the rejected base claim and thus inherit the deficiency thereof.” In view of the amendment to independent claim 1, Applicants believe the remaining claims are in condition for allowance and request that the rejection be withdrawn.

Non-elected claims 16-29 have been cancelled without prejudice. Applicants reserve the right to pursue such claims in one or more continuation applications.

In summary, Applicants submit that the rejection of claims 1-15 under 35 USC § 112, second paragraph, has been overcome, and that the rejection should be withdrawn.

§ 102 Rejections

The Office Action rejected independent claim 1, and dependent claims 3, 7-8, 10-11 and 14-15 under 35 USC § 102(b) as being anticipated by Arends et al. (U.S. Patent No. 5,360,659). Applicants disagree that original independent claim 1 is anticipated by Arends et al., and note that the final “wherein” clause of original claim 1 was ignored by the Examiner in making the rejection. That final “wherein” clause, however, helped distinguish over Arends et al. by placing a condition on the first effective optical packet, which condition is neither taught or suggested in Arends et al. In that regard, although Arends et al. teaches IR reflecting films that include optical layers in a 7A1B1A7B1A1B configuration *generally*, it does not disclose any *particular* film with any *particular* first or last optical layer that form a *particular* effective optical packet. This is because Arends et al. did not appreciate that the selection of the first or last optical layer in an effective optical packet could have an effect on the film's variability in transmission over optical wavelengths. In response to the Examiner's rejection, Applicants have amended claim 1 to cancel the final “wherein” clause and substitute therefor a clause specifying

“...a first optical layer disposed at the one end of the first effective optical packet and a second optical layer disposed at an opposite end of the first effective optical packet are selected from among the sequence of six optical layers 7A1B1A7B1A1B to reduce said variability in transmission”.

Support for the amendment can be found e.g. in original claim 13; at page 5, lines 1-8; at page 38, line 29 – page 39, line 14; and in Figure 23. This condition is not taught in Arends et al., and it also avoids an explicit comparison to an unclaimed optical body that was present in original claim 1. However, in order to provide clear notice to the public regarding the terminology “to reduce” in amended claim 1, Applicants state that they intend such language to have a clear objective meaning, namely, that the variability in transmission of the claimed optical body is less than (“reduced” relative to) the variability in transmission of an optical body that is identical to the claimed optical body except for having a second effective optical packet substituted for the first effective optical packet, the second effective optical packet having optical layers arranged in a second cyclic permutation of 7A1B1A7B1A1B different from the first cyclic permutation. (See e.g. page 11, line 28 – page 12, line 9 and original claim 1). In that regard, amended claim 1 is submitted to be no narrower in scope than original claim 1. As an example of an optical body satisfying the language of amended claim 1, the Examiner's attention is directed to FIG. 25f, which shows variability in transmission for each of 49 permutations of 7A1B1A7B1A1B-type constructions. The film III6 is an example of an optical body satisfying amended claim 1, because its variability in transmission, namely 7.45, is less than the variability in transmission of film VI3, namely 7.70. The latter film VI3 is identical to film III6 except for having a second effective optical packet substituted for the effective optical packet of film III6, the second optical packet having optical layers arranged in a second cyclic permutation of 7A1B1A7B1A1B different from the first cyclic permutation.

Amended claim 1 is therefore submitted to be novel over Arends et al. Withdrawal of the rejection of claim 1, and of its dependent claims 3, 7-8, 10-11 and 14-15, is respectfully requested.

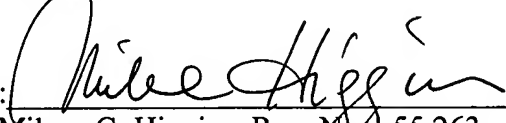
Conclusion

In view of the above, it is submitted that the application is in condition for allowance.
Reconsideration of the application is requested.

Allowance of claims 1 and 3-15, as amended, is solicited.

Respectfully submitted,

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Date

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